

## **APPENDIX A**

### **VA. CODE § 10.1-1186.1**

§ 10.1-1186.1. Department to publish toxics inventory.

The Department of Environmental Quality shall publish in March of each year the information reported by industries pursuant to 42 U.S.C. § 11023 in its document known as the "Virginia Toxic Release Inventory." The report shall be (i) organized by chemical, facility and facility location, and standard industrial classification code, and (ii) distributed to newspapers of general circulation and television and radio stations. The report shall include the information collected for the most recent calendar year for which data is available prior to the March publication date.

## APPENDIX B

### GLOSSARY OF TERMS

**coincidental manufacture** – production of an EPCRA section 313 chemical as a byproduct or impurity as a result of the manufacture, processing, otherwise use, treatment, disposal or other waste management of other chemical substances.

**energy recovery** – recovery of useful energy from waste mainly through combustion of chemical waste.

**facility** – defined for the purposes of TRI reporting as all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person (entity).

**fugitive (non-point) air releases** – emissions to the air that are not conveyed through stacks, vents, ducts, pipes, or other confined air streams within the boundaries of a facility. Examples include equipment leaks from valves, pump seals, flanges, compressors, sampling connections, open-ended lines, and evaporative losses from surface impoundments and spills.

**manufacture** – to produce, prepare, import, or compound a toxic chemical.

**North American Industry Classification System (NAICS)** - is the standard used by Federal statistical agencies that collect or publish data by industry. It is a system for classifying an establishment by type of economic activity.

**off-site locations** – locations outside the boundaries of a facility to which wastes are transported for treatment, energy recovery, recycling, or disposal.

**otherwise use** – any use of a toxic chemical at a facility which is not covered by the definitions of manufacture or process. This includes any activities in which a listed toxic chemical does not become intentionally incorporated into the final product for distribution in commerce. Examples of otherwise use include degreasers, solvents in paints that are applied to a product, chemicals used in water treatment, and refrigerants or coolants.

**Persistent Bioaccumulative Toxic (PBT) chemical** - a chemical that is stable for a long period of time, and builds up in the environment, particularly in food chains.

**Publicly Owned Treatment Works (POTW)** – a wastewater treatment facility which is owned by a unit of the government.

**process** – refers to the preparation of a listed toxic chemical after its manufacture, for distribution in commerce. Processing is usually the intentional incorporation of a toxic chemical into a product. It includes making mixtures, repackaging, and using a toxic chemical as a feedstock, raw material, or starting material for making another chemical.

**recycle** – the process of capturing a useful product from a waste stream. Solvent recovery, metals recovery, and acid regeneration are examples of recycling.

**releases** – refers to on-site discharges of TRI chemicals to the air, water, land, and disposal in underground injection wells (none in Virginia). They include permitted, accidental, and non-permitted discharges.

**releases to air** – see fugitive (non-point) air releases and stack (point source) air releases.

**releases to land** – refers to landfilling, surface impoundment, land treatment/application farming, or any other release of a toxic chemical to land within the boundaries of a facility.

**releases to water** – refers to discharging of chemicals to surface waters such as rivers, lakes, ponds, and streams within the boundaries of a facility.

**source reduction/pollution prevention** – activities that reduce the quantity and /or toxicity of wastes generated. Improved operation and maintenance, process and equipment modification, conservation practices, material substitution, product modification, and in-process recycling are examples of pollution prevention.

**stack (point source) air releases** – emissions to the air that are conveyed through stacks, vents, ducts, pipes, or other confined air streams within the boundaries of a facility. Examples include storage tank emissions and emissions from air pollution control equipment.

**Standard Industrial Classification code (SIC code)** – a four digit number code designated by the Federal Office of Management and Budget to describe the type of activity(s) at a facility. The first two numbers of the code define a major business sector, and the last two numbers define a facility's specialty within the major sector.

**toxic** – a substance that produces or causes a systemic damage to an organism.

**transfers** – refers to TRI chemicals sent off-site for energy recovery, recycling, treatment or disposal. They are reported as transfers to either Publicly Owned Treatment Works (POTWs) or other off-site transfers (non-POTWs) such as incinerators, landfills, other treatment, recycling, energy recovery, or disposal facilities not part of the reporting facility.

## **APPENDIX C**

### **SUPPLEMENTARY RESOURCES**

Additional TRI data and individual facility information are available for the 1997 through 2003 reporting years. If you would like additional information on specific facilities or chemicals, please call the Virginia Department of Environmental Quality's SARA Title III Office at **(804) 698-4000** or direct your request in writing to the Virginia Department of Environmental Quality, SARA Title III Office, P.O. Box 1105, Richmond, VA 23218.

1. TRI data can be accessed on the Internet through the Virginia Department of Environmental Quality SARA Title III Program web page: <http://www.deq.virginia.gov/sara3/313.html>
2. The Form Rs submitted by facilities within the state are on file at the Virginia DEQ. Any inquiries about Form R information or the TRI program in Virginia should be made to the SARA Title III Program Coordinator.
3. The Environmental Protection Agency's Toxic Release Reporting Center is the national repository for all TRI reports submitted to the EPA. The data is available on CD-ROM, magnetic tape, floppy disk, and microfiche. Copies of the reports were distributed to more than 3,000 libraries nationwide.
4. Any questions regarding the Emergency Planning and Community Right to Know Act (EPCRA) can be forwarded to EPA's toll free EPCRA call center. The phone numbers are: **(800) 424-9346, (703) 412-9810, or TDD (800) 553-7672.**
5. The Automated TRI Reporting Software (ATRS) includes instructions for on-line reporting and submittal of report, the TRI Assistance Library (TRIAL). TRIAL is a Windows based help utility that contains policy and guidance documents to help facilities with TRI reporting. For more information visit EPA's website:  
<http://www.epa.gov/tri/report/software/index.htm#trial>
6. The Right-to-Know Network (RTK NET) offers access to TRI data, along with health facts for each TRI chemical, searchable through the World Wide Web, Telenet, and dialup. RTK NET promotes pollution prevention, data analyses, and communication among individuals concerned about toxics use reduction. <http://www.rtknet.org/>
7. ENVIROFACTS integrates data extracted from several EPA programs, including TRI. ENVIROFACTS allows users to search the database by facility name, its location, by chemical, or by NAICS code. [http://www.epa.gov/enviro/index\\_java.html](http://www.epa.gov/enviro/index_java.html)

8. TRI Explorer is another tool provided by EPA, which allows users to search TRI data by county, facility, chemical, etc. <http://www.epa.gov/triexplorer/>
9. For information on the EPCRA Section 313 program and consolidated list of chemicals subject to EPCRA Section 313 and other federal programs, please visit EPA's website: <http://www.epa.gov/tri/>
10. EPA's Risk Screening Environmental Indicators (RSEI) is a computer based model that uses TRI data for analysis of risk-related impacts of toxic chemical releases and transfers in the US. <http://www.epa.gov/opptintr/rsei/>

## APPENDIX D

### TRI REPORTING CHANGES

#### **CHANGES IN TRI REPORTING OVER THE YEARS**

***(from most recent to oldest changes)***

##### **2007 NAICS Revisions**

On June 3, 2008, EPA published a final rule to incorporate 2007 Office of Management and Budget (OMB) revisions and other corrections to the NAICS codes used for TRI Reporting. [Federal Register (FR) notice [73 Federal Register 32466](#) (June 9, 2008)] With this rule, facilities are required to use 2007 NAICS codes on TRI reporting forms that are due on July 1, 2009, covering releases and other waste management quantities at the facility for 2008.

##### **Dioxin and Dioxin-like Compounds Toxic Equivalency Reporting for the 2008 Reporting Year**

On May 10, 2007, EPA announced final rule on the reporting requirements for the Toxics Release Inventory (TRI) dioxin and dioxin-like compounds category. There are 17 distinct members of this chemical category listed under TRI. EPA currently requires that facilities report, in grams, the total amount of dioxin and dioxin-like compounds released from the facility. When available, the facility must also provide a single “distribution,” showing how that total is divided among the individual dioxin and dioxin-like compounds. This single distribution must represent either total releases, or releases to the media (air, land, water) for which the facility has the best information. Although useful, total releases are not the best measure of the actual toxicity of these compounds because each compound has its own level of toxicity. To account for how compounds vary in toxicity, a weighted value called toxic equivalents (TEQs) will be used.

##### **Final TRI Burden Reduction Rule Announced**

On December 18, 2006, EPA announced a final rule that expands eligibility for TRI reporters to use the Form A Certification Statement in lieu of the more detailed Form R. This rule is intended to encourage shifts from emissions to preferred waste management practices such as recycling.

This rule expands eligibility for TRI reporters to use Form A, a simpler form with less detailed information, in lieu of the more detailed Form R. Reporting facilities are allowed to use Form A for non-PBT (Persistent, Bioaccumulative, and Toxic) chemicals, so long as releases or other disposal is not greater than 2,000 pounds as part of the total waste management limit for the chemical, which is not more than 5,000 pounds. Form A may be used for certain chemicals of greater concern (i.e., persistent, bioaccumulative, and toxic, or PBT, chemicals) when there are no releases or other disposal and no more than 500 pounds of other waste management (e.g., recycling or treatment). This rule makes Form A available for use in reporting PBT chemicals under limited circumstances for the first time in the program’s history. “Non-production related

waste,” i.e., waste from one time events such as facility cleanups or extraordinary weather events must be counted when determining eligibility to use Form A.

### **TRI NAICS Rule Published 2006**

EPA published a final rule to link Toxic Chemical Release Reporting to North American Industry Classification System (NAICS) codes. Owners and operators of facilities subject to TRI reporting must identify their principal business activities using NAICS codes beginning with reports due July 1, 2007 for releases and other waste management activities for Reporting Year 2006

### **Methyl Ethyl Ketone (MEK) Delisted for 2005**

On June 30, 2005 Methyl Ethyl Ketone was deleted from the TRI reportable chemical list. Therefore beginning with reporting year 2005, MEK is no longer required to be reported under TRI.

### **Final Rule - Lead and Lead Compounds; Lowering of Reporting Thresholds**

On January 13, 2001, EPA published the final rule to lower the reporting thresholds for lead and lead compounds (66 FR 4499, 40 CFR Part 372). The rule became effective April 17, 2001, and applied to TRI reports for reporting year 2001. The reporting thresholds were lowered to 100 pounds for lead (except when contained in steel, brass and bronze alloys) and lead compounds. Under previous reporting requirements facilities had to report lead and lead compounds only if they manufactured or processed more than 25,000 pounds annually or otherwise used more than 10,000 pounds annually. Lead and lead compounds are of concern not only because they are persistent bioaccumulative toxic chemicals but also because they are especially toxic to children. Children absorb lead more readily than adults. Once exposed they can suffer from damage to the brain and central nervous system, slow growth, hyperactivity, and behavior and learning problems. Adults can suffer difficulties during pregnancy, high blood pressure, nervous disorders, and memory and concentration problems.

### **Chromite Ore from the Transvaal Region of South Africa Delisted for 2000**

On May 11, 2001 both chromite ore mined in the Transvaal Region of South Africa, and the unreacted ore component of the chromite ore processing residue (COPR) were deleted from TRI reporting requirements. Therefore, beginning with reporting year 2000 this particular chromite ore and the unreacted ore component of the COPR are no longer required to be reported under TRI.

*Note that this delisting does not include any of the Cr(III) or Cr(VI) compounds that are also part of the COPR. This delisting only applies to the unreacted ore component of the COPR.*

### **Persistent Bioaccumulative Toxic Chemicals Rule Added for 2000**

EPA finalized a rule on October 29, 1999, (64 FR 58666) to add several persistent bioaccumulative toxic (PBT) chemicals to the TRI reportable chemical list, and to lower the reporting thresholds for a subset of the PBTs. Additionally, this rule added the non-PBT chemical category vanadium compounds and changed the qualifier for the non-PBT chemical vanadium. The new chemicals and thresholds were first reported in reporting year 2000.

### **Phosphoric Acid Delisted for 1999**

On June 27, 2000, phosphoric acid was deleted from the TRI reportable chemical list. Therefore beginning with reporting year 1999, it was no longer required to be reported under TRI.

### **Facility Expansion**

On May 1, 1997, the United States Environmental Protection Agency (EPA) published a final rule (62 FR 23833; 40 CFR Part 372) expanding the industries required to report their toxic chemical releases and management under the EPCRA Section 313 - Toxic Release Inventory (TRI). Traditionally only the manufacturing sectors were required to file TRI reports. However, this rule expansion required seven non-manufacturing sectors to report. This regulation became effective for the 1998 calendar year activity reporting. The new industries were:

- Metal Mining (SIC 10, except 1011, 1081, and 1094)
- Coal Mining (SIC 12, except 1241)
- Electricity Utilities (SIC 4911, 4931, and 4939) - only facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce
- Treatment, Storage, and Disposal Facilities (TSDF) (SIC 4953 - only facilities regulated under the RCRA Subtitle C, 42 U.S.C. section 6921 et seq.)
- Chemical Distributors (SIC 5169)
- Petroleum Terminals and Bulk Storage Facilities (SIC 5171)
- Solvent Recovery Facilities (SIC 7389 - only facilities primarily engaged in solvent recovery services on a contract or fee basis)

EPA expanded the TRI reporting coverage with the intention to broaden and improve the "community right-to-know" public data base and to fill information gaps relating to the use and releases and other waste management activities of toxic chemicals by the existing covered facilities. According to EPA, the industry groups being covered under the expansion rule are responsible for the manufacturing, processing, otherwise use, releases, and/or other waste management of substantial quantities of TRI chemicals, and are engaged in activities similar to or related to activities conducted by manufacturing sectors.



### **Chemicals removed for 1997**

For the 1997 reporting year two chemicals were removed from the TRI chemical reporting list:

2-bromo-2-nitropropane (bronopol)

2,6-dimethylphenol

### **New chemicals added for 1995**

For the 1995 reporting year, 286 toxic chemicals and chemical categories were added to the TRI chemical list. This resulted in almost doubling the amount of listed TRI chemicals. See EPA website: <http://www.epa.gov/tri/chemical/index.htm>

### **U.S. Pollution Prevention Act**

In 1990, the Pollution Prevention Act (PPA) was passed by Congress requiring the addition of information on source reduction and toxic chemicals in waste.

### **Court Decision in Barrick Goldstrike Mines, Inc. v. Whitman, (Civ. Action No. 99-958(TPJ))**

On April 2, 2003, Judge Thomas P. Jackson of the District Court for the District of Columbia ruled in the Barrick Goldstrike Mines, Inc. v. Whitman, regarding the TRI reporting obligations of mining industry, by upholding EPA's interpretations of "Intra-Category Manufacture" and "Reporting on Toxic Chemicals in Tailings." The rulings were limited to the reporting of "naturally occurring" impurities and impacted on how the amount of impurity in the process stream is reported and allowed *de minimis* exemption claim on naturally occurring non-PBT chemicals present in waste rock.

### **Denial of Petition - Overburden Exemption**

On October 10, 2001, EPA denied the petition submitted by the National Mining Association (NMA) to modify the EPCRA Section 313 definition of "overburden" to include both consolidated and unconsolidated material (67 FR 63060). As written in the regulation, only unconsolidated material is considered as overburden under the TRI program. EPA concluded that consolidated rock includes materials that often contain toxic chemicals above negligible amounts, often in significant quantity.

### **EPA Response to National Mining Association (NMA) on Extraction and Beneficiation Activities**

On April 23, 2001, EPA responded to a guidance request from NMA on whether extraction and beneficiation activities at mining facilities constitute the “processing” or “manufacture” of toxic chemicals in ore.

- (i) The term “manufacture” means to produce, prepare, import, or compound a toxic chemical.
- (ii) The term “process” means the preparation of a toxic chemical, after its manufacture, for distribution in commerce.

EPA responded in the letter that they intend to initiate rulemaking to adopt a revised interpretation that will allocate extraction and beneficiation activities between these two statutory terms. However, until this rulemaking is completed, EPA will not definitively resolve whether a particular activity is best characterized as “manufacturing” or as “processing.” For now, individual facilities will remain responsible for determining whether their preparation of the toxic chemicals in the ore is better characterized as “manufacturing” or “processing.”

### **Stakeholder Dialogue for the TRI Program**

EPA has undertaken a stakeholder dialogue for the TRI program. Given its community focus and the broad and varied uses of the TRI data, EPA has sought input from stakeholders.

The stakeholder dialogue contains two phases. Phase 1 focuses on the program objectives of timely public release of quality data. Specifically, EPA sought comment in the following areas:

- how to improve the compliance assistance provided by the TRI program, both at Headquarters and in the Regions, to aid the reporting community;
- how to streamline the collection and processing of the 90,000+ TRI forms that EPA receives annually; and
- how well the materials, including the context, documents and tools, that EPA develops for its annual public release of the TRI data supports their use and analysis of the data.

Phase 2 of the stakeholder dialogue focuses on the program objectives of improving public understanding of the data and of the nature of facility releases. One key element is clarifying the data elements on recycling and other waste management activities required by the Pollution Prevention Act.

### **Proposed Diisononyl Phthalate Category (DINP)**

EPA proposed a rule on September 5, 2000 (65 FR 53681) to add a diisononyl phthalate (DINP) category to the list of toxic chemicals subject to the reporting requirements under EPCRA section 313. The proposed rule is based on DINP's carcinogenicity and liver, kidney, and developmental toxicity. EPA had extended the comment period until February 2, 2001. DINP is often used as a plasticizer to provide greater flexibility and softness to the final product, but it does have other uses.

## **APPENDIX E**

### **TRI-COVERED INDUSTRY GROUPS BY NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM**

TRI covered industry groups are identified by the following North American Industry Classification Systems (NAICS) sub-sector codes and general industry types:

211	Oil and Gas Extraction
212	Mining
221	Utilities
311	Food Manufacturing
312	Beverage and Tobacco Product Manufacturing
313	Textile Mills
314	Textile Product Mills
321	Wood Product Manufacturing
322	Paper Manufacturing
323	Printing and Related Support Activities
324	Petroleum and Coal Products Manufacturing
325	Chemical Manufacturing
326	Plastics and Rubber Products Manufacturing
331	Primary Metal Manufacturing
332	Fabricated Metal Product Manufacturing
333	Machinery Manufacturing
334	Computer and Electronic Product Manufacturing
335	Electrical Equipment, Appliance, and Component Manufacturing
336	Transportation Equipment Manufacturing
337	Furniture and Related Product Manufacturing
339	Miscellaneous Manufacturing
424	Merchant Wholesalers, Non Goods
562	Waste Management and Remediation Services
924	Administration of Environmental Quality Programs
927	Space Research and Technology
928	National Security and International Affairs